(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



I DEGLE BUILDER IN DERNE HERR EERN EEUN EUR I IN EN EERN TEELE TERK EINES EINE TERK EERLEN HEER HIN EER

(43) International Publication Date 16 September 2004 (16.09.2004)

PCT

(10) International Publication Number WO 2004/079439 A3

G02F 1/1347 (51) International Patent Classification⁷:

(21) International Application Number:

PCT/JP2004/002931

5 March 2004 (05.03.2004) (22) International Filing Date:

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 2003-058561

5 March 2003 (05.03.2003)

(71) Applicant (for all designated States except US): CANON KABUSHIKI KAISHA [JP/JP]; 3-30-2, Shimomaruko, Ohta-ku, Tokyo, 1468501 (JP).

(72) Inventor; and

- (75) Inventor/Applicant (for US only): YUASA, Satoshi, [JP/JP]; C/o Canon Kabushiki Kaisha 3-30-2, Shimomaruko, Ohta-ku, Tokyo, 1468501 (JP).
- (74) Agents: OKABE, Masao, et al.; No. 602, Fuji Bldg.,, 2-3, Marunouchi 3-chome, Chiyoda-ku, Tokyo 1000005 (JP).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

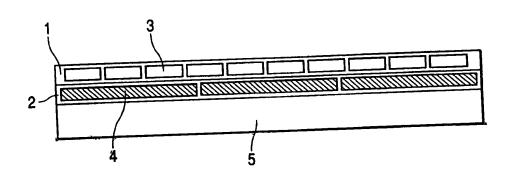
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 24 February 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COLOR IMAGE DISPLAY PANEL AND DRIVING METHOD THEREOF



(57) Abstract: An image display panel having, in a multilayer structure, a first (1) and second light (2) modulating layers each comprising a periodical planar arrangement of a plurality of light modulating elements (3, 4) for modulating a color or a brightness of an incident light in response to an input signal, wherein the arrangement period of the light modulating element in the first light modulating layer (3) is smaller than the arrangement period of the light modulating element in the second light modulating layer (4).





A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G02F1/1347

According to International Patent Classification (IPC) or to both national classification and IPC

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, COMPENDEX, MEDLINE

DOCUME	ENTS CONSIDERED TO BE RELEVANT	Relevant to claim No.
Category °	Citation of document, with Indication, where appropriate, of the relevant passages	
X Y X	EP 0 347 790 A (HONEYWELL INC) 27 December 1989 (1989-12-27) column 1, line 50 - column 2, line 8 column 3, line 21 - line 48 column 5, line 27 - line 46 column 7, line 32 - column 8, line 35 figures 1A,6,10,11 EP 0 579 382 A (XEROX CORP) 19 January 1994 (1994-01-19) column 3, line 8 - line 26 column 4, line 33 - column 6, line 19 column 11, line 5 - line 28	1-3,6,7, 9,11 4,5,8,10 1,2,6,7, 9,11
	claims 1,3 figures 1,4	
1		

X Patent family members are listed in annex.
 "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered not involve an inventive step when the document is taken alone involve an inventive at particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family Date of mailing of the international search report 28, 12, 04
Authorized officer Girardin, F

3



	IN I ERNA	PCT/JP2004/00293.	*
(Continua	tion) DOCUMENTS CONSIDERED TO BE RELEVANT	Relevant to d	laim No.
ategory °	Citation of document, with indication, where appropriate, of the relevant passages		
(DATABASE MEDLINE 'Online! US NATIONAL LIBRARY OF MEDICINE (NLM), BETHESDA, MD, US; February 1985 (1985-02), MULLEN K T: "The contrast sensitivity of	4,5	,8,10
	human colour Vision to red green and blue-yellow chromatic gratings." XP002281432 Database accession no. NLM3999044 abstract & THE JOURNAL OF PHYSIOLOGY. ENGLAND FEB		
A	vol. 359, February 1985 (1985-02), pages 381-400, ISSN: 0022-3751	1,	,11
n	21 August 1985 (1985-08-21) page 9, line 5 - page 10, line 3 figure 1		
3			



INTERNATIONAL SEARCH REPORT

mational application No. PCT/JP2004/002931

INTERNATIONAL SEARCE	
Asia alaime war	re found unsearchable (Continuation of Item 2 of first sheet)
Box II Observations where certain claims wer	o louid and
This international Search Report has not been establish	ned in respect of certain daims under Article 17(2)(a) for the following reasons:
Claims Nos.: because they relate to subject matter not requ	
Claims Nos.: because they relate to parts of the Internation an extent that no meaningful International Se	nal Application that do not comply with the prescribed requirements to such earch can be carried out, specifically:
	e not drafted in accordance with the second and third sentences of Rule 6.4(a).
the of inventi	ion is lacking (Continuation of item 3 of first sheet)
Box III Observations where unity of invent	and the sectional application, as follows:
This International Searching Authority found multiple	e inventions in this international application, as follows:
see additional sheet	
searchable dams.	. re timely paid by the applicant, this international Search Report covers all
As all searchable claims could be search of any additional fee.	hed without effort justifying an additional fee, this Authority did not invite payment
As only some of the required additional covers only those claims for which fees	search fees were timely paid by the applicant, this International Search Reports were paid, specifically claims Nos.:
4. χ No required additional search fees we restricted to the invention first mention $1-11$	ere timely paid by the applicant. Consequently, this international Search Report is need in the claims; it is covered by claims Nos.:
Remark on Protest	The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.



Inte	Application No
	2004/002931
	- 1 H - 1 H - 1

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 0347790	A	27-12-1989	US CA DE DE EP ES JP JP	4886343 A 1331408 C 68913084 D1 68913084 T2 0347790 A2 2050188 T3 2110430 A 2797199 B2	12-12-1989 09-08-1994 24-03-1994 14-07-1994 27-12-1989 16-05-1994 23-04-1990 17-09-1998
EP 0579382	Α	19-01-1994	DE DE EP JP JP US	69316673 D1 69316673 T2 0579382 A1 3329887 B2 6123893 A 5642125 A	05-03-1998 23-07-1998 19-01-1994 30-09-2002 06-05-1994 24-06-1997
EP 0151846	Α	21-08-1985	EP CA DE JP JP JP US	0151846 A1 1229438 A1 3466817 D1 1596807 C 2022956 B 60172092 A 4725828 A	21-08-1985 17-11-1987 19-11-1987 28-01-1991 22-05-1990 05-09-1985 16-02-1988